### MOCAS REHOST SOW

## Mechanization of Contract Administrative Services Rehost Statement of Work

## 1. Scope

The scope of this procurement is all services and supplies associated with, or supportive of, the rehost of the Mechanization of Contract Administration System (MOCAS) including but not limited to:

- Technical migration of MOCAS to execute on a Defense Information System Agency (DISA) Standard Operating Environment (SOE) compliant Relational Database Management System (RDBMS).
- Development of all system and project documentation.
- Repair of the rehosted MOCAS after installation

### 2. Background

MOCAS is an automated integrated financial and contract administration system developed in the late 1950's and enhanced over the years to maintain regulatory compliance and to support new business functionality. The system has over 8,600 authorized end users from the Defense Finance and Accounting Service (DFAS), Defense Contract Management Agency (DCMA) and other DoD components who access the system from locations worldwide. MOCAS resides on a DISA mainframe at the Defense Enterprise Computing Center (DECC), currently in Columbus, Ohio, and consists of three separate databases (MOCH, MOCL, MOCG) that serve two regions: East and West. Each database has its own copy of executables (programs) and Job Control Language (JCL). MOCAS consists of both interactive on-line (MANTIS and Customer Information Control System (CICS)) and batch system processing. The primary programming languages are COBOL and MANTIS, and a few programs written in Assembler. There are a number of systems that interface with MOCAS using a variety of platforms and interface methods that are critical to the overall functions of MOCAS. These systems are not part of the MOCAS rehost, but their interfaces must be maintained. There are approximately 1.5 million lines of source code maintained using a single source code library. The executables are, in large part, mirrored in each of the three databases.

### 3. Objective

The objective of this program is to begin the incremental progression of MOCAS toward a modern, integrated business solution. DFAS is, in furtherance of this objective, rehosting MOCAS. This will provide a foundation for future business process improvements, technical capabilities, and reduced costs. However, none of those improvements are included in this contract.

#### 4. Project Management

The contractor shall submit, as part of its proposal and in accordance with the terms of the solicitation, a Program Management Plan (PMP), Program Quality Assurance Plan (PQAP), Software Development Plan (SDP), Configuration Management Plan (CMP), Software Test Plan (STP) and a Transition Plan that the contractor will use to manage this contract. The Government will use these plans, during the course of the contract, to monitor the contractor's progress toward timely and acceptable performance. The Government may determine that deviations from these plans are conditions threatening performance.

During the execution of the PMP, PQAP, SDP, CMP, STP and Transition Plan, the contractor is required to generate updates to those documents and submit the documents as they are revised, to the Contracting Officer's Representative (COR). The contractor is also required to develop and submit drafts of all other documentation required for delivery under paragraph 13 of this Statement of Work (SOW). The COR may use the documents to determine if the contractor is making progress toward timely and acceptable performance of the contract. All documentation shall be provided as a hardcopy and on a CD-ROM using Microsoft Word 97, Excel 97, PowerPoint 97 and/or Project 98.

The contractor shall also provide:

- A status report every other week that includes an identification of work performed to date, and any issues that may impact performance.
- Monthly In Process Review (IPR) meetings with minutes, and
- Upon the completion of each milestone, a report indicating that the milestone was met and what was done to meet that milestone. Each such report shall be consolidated into a single, ongoing document that traces the total progress of all of the milestones in the Program Management Plan.

As soon as the contractor knows of any deviations from the plans listed above, it will report such deviations to the COR, give an explanation for the deviations, and provide updated plans and schedules. The above reports and IPRs do not relieve the contractor from the terms of the contract. Any deviation from the approved plans may be construed as a condition endangering performance.

The Government expressly reserves the right to observe, shadow, question, make suggestions to, and otherwise interact with the contractor during the performance of the contract. However, the contractor is responsible to notify the Contracting Officer (CO), in writing, if at any time it believes that the communication under this clause is interfering with the performance of the contract and provide the Government 24 hours to evaluate the objection and if appropriate, discontinue the behavior. The contractor is also responsible to give priority to the timely performance

of the contract, rather than communications with the Government. This clause does not negate the CO authority to modify this contract or to issue change orders under the Changes Clause.

### 5. As-Is MOCAS

The contractor, in order to reproduce the current MOCAS functionality in a RDBMS, must ascertain the functionality of the current, as-is MOCAS. The contractor will have:

- A complete copy of MOCAS systems loaded with a one-time snapshot of full-production data. The boundaries of the as-is MOCAS are contained in section J, attachment 1, MOCAS Rehost As-Is Documentation MOCAS Technical Environment Chart. Interfaces, applications, or files not designated as part of the as-is MOCAS in that attachment may not be changed.
- The as-is documentation provided as an attachment to this solicitation. The as-is documentation only represents a high-level approximation of MOCAS. It is based on incomplete and/or outdated documentation.
- The option of submitting questions, in writing, through the COR.
  - However, the Government does not guarantee that it will be able to answer any particular question that is submitted because of the incomplete and/or outdated knowledge of MOCAS.
  - These questions and answers do not relieve the contractor from responsibility for ensuring that it has a thorough and correct understanding of the as-is functionality.
  - The Government will acknowledge the contractor's requests within two business days.

## 6. System Development

The contractor shall rehost MOCAS using a contractor-provided, SOE-compliant RDBMS, which shall reside on a Government-provided Amdahl Millennium GS-765 mainframe running an OS/390 operating system. The contractor may choose to use any of the hardware and software provided as GFP. All other hardware or software that the contractor may require will be contractor provided and included in the price of CLIN 0001 and must be SOE-compliant (see section J, attachment 2, MOCAS DoD Guidance - Standard Operating Environment (SOE) List). The contractor shall ensure its design accommodates the consolidation of the current three physical databases into a single instance with a single set of executable files and JCL. The contractor shall map the as-is MOCAS database file structure to the rehosted MOCAS database.

The contractor shall update, convert or rewrite MOCAS's MANTIS, COBOL, and all other programs and batch JCL jobs to execute using the new database design and RDBMS. Any product, development tool or programming language to be used on the mainframe must also be SOE-compliant or have received a waiver from the CO for use. In addition, any product loaded on a workstation that is connected to the DFAS enterprise local area network (ELAN) must be listed in section J, attachment 2, MOCAS DoD Guidance - DFAS Regulation 8000.1-R Appendix 4: DFAS Standard Product List.

#### 7. Functionality

The contractor shall ensure that the rehosted MOCAS has 100% of the functionality of the as-is MOCAS system. Functionality is:

- the ability of the software delivered under this contract to operate on the hardware designated in this contract
- while supporting every one of the same Government <u>business</u> uses that can be performed using the as-is MOCAS system (for example reports, inputs, processes, outputs, screen layouts, interfaces, system accessibility to users, windows of availability) without any visibility of a change to the end users
- while supporting every <u>technical</u> capability, use, and purpose of the as-is MOCAS system (for example internal controls, edits, screen scrapes, system response times, capacity for ongoing operations, performance characteristics, archive capability, scalability, back-up and restores)
- and, while ensuring that the Government is able to retain or obtain the same level of security accreditation as the as-is MOCAS system. Specifically, MOCAS currently maintains a Certification and Accreditation Level 2, in accordance with DoDI 5200.40, DoD Information Technology Security and Accreditation Process, and DoDD 5200.28, Security Requirements for Automated Information Systems.

The contractor shall read the definition of functionality broadly, that is, to be inclusive of features rather than exclusive of features. Functionality includes but is not limited to:

- The human-PC interface. The rehosted system will evidence no change to the screen layouts, order of fields, character input, screen resizing capabilities, help buttons, or any other characteristic. For example, if a special key must be struck today, then that same key must be used in the new system. In addition, end users must have access only to that portion of the MOCAS data as they have in the current MOCAS system. The contractor must ensure that the same emulators used today by end users can remain in use in the rehosted system.
- System Interfaces. The rehosted system must maintain all system interface capability as the as-is MOCAS system, without requiring any changes to non-MOCAS systems.
  - The contractor must retain all interface functionality. Where any part of a system interface, whether files or programs, are identified as part of the as-is MOCAS, the contractor may change them, while maintaining full functionality. If they are not identified as part of the as-is MOCAS, they may not be changed, and as with all interfaces, their functionality must be maintained. The contractor shall notify the COR of any applications not indicated on the MOCAS Technical Environment Diagram as soon as they are identified by the contractor. As with all interfaces:

- Any file transferred with a particular file transfer protocol must remain capable of being transferred with that protocol.
- Where systems interface with MOCAS via emulators on a PC, the contractor must ensure that the interfaces are maintained using the same emulators.
- Reports and queries. All reports and queries will have the same data elements, formats, information, order, distribution (for example reports via the Mechanization of Reports Distribution System (MORDS)) and all other characteristics as generated by the as-is MOCAS system. Specifically, all reports must be based only on the portion of the data from which it is drawn in the as-is MOCAS. For example, if a report in the as-is system is drawn only from the "West" database, it must still only be drawn from that data in the rehosted system.
- On-line updates. Any updates performed on-line in the as-is MOCAS system will be performed on-line in the rehosted system. The same on-line edits will be performed in the rehosted system as in the as-is MOCAS system.
- Batch updates. Any updates performed in batch in the as-is MOCAS system will be performed in batch in the rehosted system. The same batch edits will be performed in the rehosted system as in the as-is MOCAS system. The system must allow for timing of batch processing (including all pre-cycle and post-cycle maintenance, back-ups and restores), which does not alter the as-is MOCAS system on-line availability for each time zone.
- Error messages. Error messages will be numbered and worded in the rehosted system the same as they are numbered and worded in the as-is MOCAS system.

The contractor shall, if it determines that any component of the as-is MOCAS code does not perform a function, prepare a written explanation of the rationale, prepare complete documentation of the code, and submit it to the COR for permission prior to making a determination that it is not part of the system functionality. The contractor understands that it is unlikely that the Government will give permission to omit from the rehosted MOCAS code believed to be inactive.

#### 8. Migration Programs

The contractor shall deliver, as part of CLIN 0001, all the source code, executable objects and all other development products or programs for the Extraction, Translation, and Loading (ET&L) programs required for data migration. The programs will be designed to migrate the as-is MOCAS data to the rehosted MOCAS without deleting it from the as-is MOCAS and while preventing the transfer of any data when:

- The data fails to meet database validations and edits;
- The data is duplicate based on the same edits and logic currently utilized in the MOCAS contract transfer programs; or
- The contractor has received prior written permission of the CO to not migrate the data.

The ET&L programs must also be able to:

- generate an exception report containing all data not migrated into the rehosted MOCAS
- move data not migrated into the rehosted MOCAS to an editable, suspense file that is separate from both the as-is MOCAS and the rehosted MOCAS
- migrate the edited data from the suspense file to the rehosted MOCAS and cause any rejections to return to the suspense file, and
- produce sufficient evidence to demonstrate that the program accurately migrated the data. (Note: the contractor may choose to develop a method separate from the ET&L programming for generating this evidence.)

# 9. Contractor Testing

The contractor shall submit, as part of its proposal, and in accordance with the terms of the solicitation, a Software Test Plan. The Government will use the test plan, during the course of the contract, to monitor the contractor's progress toward timely and acceptable performance and to determine whether deviations from this plan are conditions threatening performance. The test plan will include, at a minimum:

- unit testing,
- integration testing, which includes exception testing, interface testing, and testing the rehosted MOCAS functionality
- performance testing, which includes expected level and stress level testing of system availability, volume and response time capability
- trial migrations including at least one complete migration of all the data in the as-is MOCAS databases by incrementally migrating one database at a time until all the data is copied into the rehosted MOCAS system on the test platform

The Government may, during the performance period, recommend exception and other testing scenarios that the contractor may consider in its testing process.

The contractor must obtain prior permission from the COR to conduct testing of system interfaces with anyone outside the PMO. The contractor shall not contact any interface partner to request such permission. In order to obtain permission, the contractor must provide to the COR a written request that includes the system interface to be tested, the manner in which the test will be conducted, and the duration of the testing. The COR will, within 60 calendar days of receipt of the request, provide the contractor, in writing, a date and time for interface testing.

The scheduled date and time for testing will not be more than 67 calendar days after the date of receipt of the contractor's request. And, the COR will give the contractor at least 7 days notice prior to the date and time for interface testing.

Notwithstanding any contractor testing, the Government expressly reserves the right to conduct any testing in order to determine that the rehosted MOCAS complies with all the terms of this contract. No testing by the Government will relieve the contractor from its responsibility to comply with all the terms of this contract.

### 10. System Delivery and Set-up

The contractor shall deliver, as part of CLIN 0001, all the source code, executable objects and all other development products or programs for the rehosted MOCAS.

To ensure coordination of installation and migration of data with the contractor and Government entities, the contractor will receive from the COR written notification to proceed with specified phases. This notification will identify the time frame in which the Government requests that the phases be performed. These timeframes, barring any unexpected situations, will correspond to the agreed upon schedule within the Project Plan.

No later than the beginning delivery date for CLIN 0001, the contractor shall have completely purged the test platform of all data and programming. On the beginning date of delivery for CLIN 0001, the contractor shall, in the presence of the COR and any other Government representatives, install the rehosted MOCAS programs on the testing platform. The contractor will have 24 hours to complete the installation. Once completed, the contractor shall receive written notification from the COR to proceed with the data migration on the testing platform.

Within the timeframe specified in the notification, the contractor shall, using the ET&L programs provided in paragraph 8, above, migrate the data from one of the three as-is databases to the rehosted MOCAS. Prior to proceeding to the next as-is MOCAS database targeted for migration, the contractor shall obtain written notification of the desired schedule from the COR. The migration of the remaining two as-is MOCAS databases to the test platform will occur within the timeframe specified in the notifications, estimated at 7 calendar day intervals. The contractor will have 24 hours to complete each migration. The contractor will also migrate any government-edited data from the ET&L suspense file to the test platform as requested in writing. Prior to proceeding to installation on the production platform, the contractor must receive written notification from the COR.

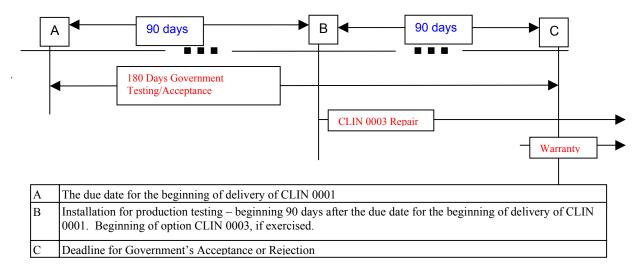
Within the timeframe specified in the notification and approximately ninety days after the due date for the beginning of delivery of CLIN 0001, the contractor shall, in the presence of the COR and any other Government representatives, install the rehosted MOCAS programs on the production platform. The contractor will have 24 hours to complete the installation. Immediately upon the completion of the installation of the rehosted MOCAS on the production platform, the contractor shall receive written notification from the COR to proceed with the data migration on the production platform.

The contractor shall using the ET&L programs provided in paragraph 8, above, migrate the data from one of the three as-is databases to the rehosted MOCAS. Prior to proceeding to the next as-is MOCAS database targeted for migration, the contractor shall receive written notification from the COR. The contractor shall migrate the remaining two as-is MOCAS databases to the production platform within the timeframe specified in the notification, estimated at 30 calendar day intervals beginning from the date of the completion of the prior as-is database. The contractor will have 24 hours to complete each migration. The contractor will also migrate any government-edited data from the ET&L suspense file to the production platform.

#### 11. Acceptance/Rejection

The Government shall accept or reject CLIN 0001 within 30 days from the final migration of the MOCAS databases (i.e. the third SUPRA database) to the production platform. At any time prior to final acceptance, any discrepancy between the functionality of the rehosted MOCAS and the as-is MOCAS maybe considered as a basis for rejection. Documentation may be rejected if (1) there is any instance where the documentation does not reflect the configuration or function of the rehosted MOCAS or (2) it does not provide sufficient instructions to operate or maintain any portion of the rehosted MOCAS.

#### **Estimated Timeline**



#### **12.** Repair

In accordance with CLIN 0003, if exercised, beginning at installation of the rehosted MOCAS on the production platform, and continuing for one year thereafter, the contractor will repair the rehosted MOCAS system at the direction of the PCO or COR. Nothing herein shall be construed to prevent the Government from exercising its contractual rights to reject non-conforming supplies or services, revoke acceptance under the terms of the contract, or exercise any other contractual term. The term repair shall be defined broadly to encompass:

- 1. The resolution of any deviation between the rehosted MOCAS system and the terms of the contract.
- 2. The resolution of any degradation in functionality or performance, whether the result of system enhancements, user error, or any other cause
- 3. A written analysis of conflict between the rehosted MOCAS and prospective enhancements.

Contractor availability shall be 24-hours/7-days a week. The contractor will accept trouble reports from the PCO or the COR only. The contractor shall be at the work site and begin repair within 2 hours of notification, if it is designated as an emergency trouble report by the PCO or COR. If the PCO or COR designates the trouble report as non-emergency, the contractor shall be at the work site and begin work by noon on the first working day after notification.

## 13. Licenses

The contractor shall, in accordance with CLIN 0004, if it is exercised, obtain and provide to the Government licenses for all software purchased by the contractor necessary for the use of the rehosted MOCAS by 9000 users.

### **14.** Documentation

Program Management Plan (PMP)

On the date of the beginning of delivery of CLIN 0001, the contractor shall deliver full documentation of both the ET&L programs and the rehosted MOCAS including the final version of all documentation created by the contractor during the performance of the contract. The contractor shall deliver one hardcopy and one electronic copy on a CD-ROM using Microsoft Word 97, Excel 97, PowerPoint 97 and/or Project 98 compatible programs. All documentation below must comply with the specifications provided in section J, attachment 3, MOCAS Rehost System Life Cycle Documentation Templates. Where no template is provided at that site, the documentation may be provided in a format chosen by the contractor and approved by the COR. Full documentation shall include but not be limited to the following:

| Program Quality Assurance Plan (PQAP)   |
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| Software Development Plan (SDP)   |
| Configuration Management Plan (CMP)   |
| Transition Plan (TP)  |
| Software Architecture and Requirements Allocation Description (SARAD)                   |
| Software Test Plan (STP) Including all test scripts, reports, checklists, and any other |
| documentation associated with the implementation of the STP.                            |
| Data Element Dictionary (DED) – including: Logical Data Element Name, Definition,       |
| Screen Alias, Report Alias, Field Length, Field Format, Edit Criteria                   |
| Database Design Description (DBDD)  |
| Software Configuration Index Record (SCIR)  |
| Product Delivery and Installation Plan (PDIP)   |
| Software Architecture Description (SAD)   |

| Software Design Description (SDD)                         |
|---|
| Software Interface Design Description (SIDD)              |
| Software Requirements Description (SRD)                   |
| Infrastructure Requirements Description (IRD)             |
| System Requirements Specification (SRS)                   |
| Users Manual (UM)   |
| Operations Manual (OM)                                    |
| System Security Authorization Agreement (SSAA)            |
| Functional Configuration Audit (FCA) Checklist and Report |
| Physical Configuration Audit (PCA) Checklist and Report   |

### **15.** Place and Conditions of Performance

The contractor shall perform all development, testing, and installation on site at the Defense Supply Center, Columbus (DSCC). The Government will not grant remote access to any Government systems from a site other than DSCC. Any work performed in conjunction with this contract, outside of DFAS facilities, must be pre-approved in writing by the COR. The contractor shall maintain a project manager and the development staff at DFAS, Columbus, Ohio (DFAS-CO). The contractor shall establish and maintain frequent contact with the COR.

### **16.** Government Furnished Property

The Government will provide, as Government Furnished Property (GFP), the following. The contractor will only use the following GFP in furtherance of the performance of this contract and for no other purpose.

- Personal computer workstations loaded with the standard, DFAS office automation software load
- Standard DFAS network access
- Access to printers, copiers, fax machines and E-mail
- Desk space
- Telephones
- The as-is MOCAS systems as described in section 5, above
- General, routinely stocked, office supplies.
- Amdahl Millennium GS-765 with sufficient space for the as-is MOCAS, development, and testing
- OS/390 Operating System
- All software listed in section J, attachment 2, MOCAS Rehost DoD Guidance MFAP Executive Software Inventory List

## **17.** Protection of Information

The Government owns, and the contractor shall not release to anyone other than the COR, without prior written permission of the PCO, any:

- work in progress
- work product
- final product developed under this contract
- information or documentation related to the performance of this contract
- information or documentation obtained from the Government, by the contractor during the performance of this contract
- information or documentation derived from any of the foregoing

The contractor will ensure that no contractor personnel shall perform work under this contract unless he/she has voluntarily sign a Government-supplied non-disclosure statement.

The contractor shall ensure that all information is protected from unauthorized access at all times and at all locations. No sensitive information shall be stored on non-Government equipment or removed from DSCC without prior written permission from the COR.

# **18.** Personnel Security Requirements

All work-performed relative to the tasks identified in the SOW are unclassified or carry a Privacy Act Classification. System security shall be in accordance with DoD directive 5200.28, Security Requirements for AIS. No classified work will be required. However, the contractor will be working with sensitive information which is covered by the Privacy Act and which is category ADP/AIS II. Contractor must ensure sensitive (privacy act) information is properly safeguarded at the work-site and not removed from the work site. Also, the contractor will be required to comply with the security requirements associated with access to the DFAS enterprise network. This requires individuals who perform duties at the ADP/AIS II category to have a favorable determination of requisite investigation IAW the specifications of the DoD Personnel Security Program as provided for in the DoD 5200.2-R. If declared, the contractor may be requested to undergo a higher level of investigation. The government will not incur the investigation expenses caused by contractor employee turn over or replacement within a year's time. The NAC includes the following:

- Standard Form 85P Questionnaire for Public Trust Positions
- FD 258 Finger Print Card

All contractor personnel requiring access to the DFAS systems will complete a National Agency Check (NAC). The SF 85P will be completed using the Electronic Personnel Security Questionnaire (EPSQ). EPSQs are available for downloading on the Defense Security Service (DSS) Web Site at <a href="www.dss.mil/epsq">www.dss.mil/epsq</a>. Completed EPSQs, to include a copy on a disk and a signed hard copy, will be provided to the Contract Officer's Representative (COR) or Government Point of Contact (GPOC) elsewhere named in this award. All 85Ps must be accompanied with a copy of the contractor's birth certificate for citizenship verification. Foreign Nationals must submit appropriate documentation from the Immigration and Naturalization Service (INS). Employment of non-US citizens requires a fully completed and favorably adjudicated background investigation prior to beginning DFAS work. The COR/GPOC will notify the contractor when contractor employees have been approved for access to the facility. The NACs should be completed before the contractor employee begins work. However, on an exception basis and if an emergency situation exists, a US citizen contractor employee may begin once the NAC has been reviewed, initiated, and there is no derogatory information and the COR/GPOC obtains contractor badges. Those US citizen contractors needed to begin work prior to receipt of a favorable NAC must have a waiver of pre-appointment investigative requirements approved by the proponent Business Line Executive, Client Executive, or Corporate Director. All contractor employees must receive a favorable NAC. Unfavorable NAC findings will require individual determinations by the cognizant DFAS security office prior to allowing contractor employee access to the facility.

#### 19. Travel Requirements

Contractor Travel at the Contractor's Discretion: The contractor may, as part of its performance of this contract, determine that it needs to travel to various Government sites in order to, for example, ascertain the MOCAS as-is environment. The cost of this travel will not be separately priced.

Contractor Travel at the Government's Discretion: The CO or the COR may direct the contractor to attend meetings and/or conduct briefings about this contract up to 2 times per month at a location other than DSCC. All contractor travel shall be performed in accordance with the "Joint Travel Regulations (JTR) - Volume 2 DOD Civilians" and reimbursement shall not exceed that allowable by the JTR. The contractor shall only perform travel when requested or approved to do so by the CO or COR."